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ELECTRONIC THESIS AND DISSERTATION UNSYIAH

TITLE

PENGARUH PENGGUNAAN KAPASITOR BANK TERHADAP FAKTOR DAYA PADA SISTEM KELISTRIKAN DI RSUD DR. ZAINOEL ABIDIN THE EFFECT OF USE CAPASITOR BANK TO THE POWER FACTOR IN THE ELECTRICAL SYSTEM AT RSUD DR. ZAINOEL ABIDIN

ABSTRACT

ABSTRACK

THE EFFECT OF USE CAPACITOR BANK TO POWER FACTOR IN THE ELECTRICAL SYSTEM AT RSUD dr. ZAINOEL ABIDIN

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The standart power faktor ($\cos \phi$) set by PLN for customers which uses large power faktor is 0,85. If power faktor ($\cos \phi$) is blow 0,85 then the reactive power will be measured and taken into account in determining the amount of the bill paid. The power faktor ($\cos \phi$) which received by RSUD dr. Zainoel Abidin is quite low at 0,8, so thet it is not enough the power faktor ($\cos \phi$) requirements set by PLN. So RSUD dr. Zainoel Abidin must pay the reactive power. The large number of electrical equipment such as electromedics and other electrical devices that are inductive causes increated reactive power. There for RSUD dr. Zainoel Abidin uses capasitor bank which can correct the power faktor ($\cos \phi$). RSUD dr. Zainoel Abidin set the standard value of power faktor ($\cos \phi$) 0,95, so there is no need to pay for reactive power (kVARh) to the PLN. With capasitor bank at RSUD dr. Zainoel Abidin it can suppress reactive power, so that it can maximize avaible power usage, reduce overload and reduce losses on the power line. Capasitor bank at RSUD dr. Zainoel Abidin has capacity 3x500 kVAR with 12 steps for each panel. Improving the power faktor, it can maintain the quality of health services at RSUD dr. Zainoel Abidin

Keywords: Power Factor, Reactif Power, Capacitor Bank